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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,940	08/10/2001	Arun Prasad	JPP-1260A NP	6062

7590 04/17/2002

JENERIC/PENTRON, INC.  
53 NORTH PLAINS INDUSTRIAL ROAD  
WALLINGFORD, CT 06492

EXAMINER
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WESSMAN, ANDREW E

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 04/17/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/927,940

Applicant(s)

PRASAD, ARUN

Examiner

Andrew E Wessman

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-15 have been submitted for examination.

#### ***Claim Objections***

2. Claims 8 and 15 are objected to because of the following informalities: For the sake of clarity in the claims, it is recommended that the claims be rewritten in Markush group format. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the claims, the percentages of various elements in the alloy are recited, but it is unclear as to what basis the percentages are taken from. It is necessary that the claims are rewritten to recite percent by weight, as is written in the specification.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al. (U.S. Patent No. 4,530,664).

Prasad et al. teaches (see abstract or claim 1) a cobalt based alloy useful in dental applications containing 50-70 wt% cobalt, 25-35 wt% chromium, 0-2 wt% manganese, and other additions which can include from about 1-6 wt% aluminum. While these ranges do not completely encompass those of the claimed invention, it has been held that where the claimed ranges overlap or lie within the ranges disclosed by the prior art, a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Furthermore, a prima facie case of obviousness exists where the claimed ranges and the prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05. In this case, because the composition of the prior art and the claimed invention are in such close approximation and are suitable for the same purpose, one of ordinary skill in the art would have expected them to have the same properties and the claimed invention would be obvious in view of Prasad et al.

In regards to the feature of claim 2, Prasad et al. teaches (see claim 1) aluminum in amounts greater than 2 wt%.

In regards to the features of claim 3, Prasad et al. teaches (see claim 1) 2-10 wt% molybdenum in the alloy, and also teaches amounts of up to 6 wt% silicon in the alloy.

In regards to the features of claims 4 and 5, Prasad et al. does not teach specific coefficient of thermal expansion or hardness values of the alloys. However, because the composition is substantially the same in Prasad et al. as in the claimed invention

and both alloys are used for the same purposes, one of ordinary skill in the art would expect the alloys of Prasad et al. to have a coefficient of thermal expansion from about 15 to about  $18 \times 10^{-6}/^{\circ}\text{C}$  at about room temperature to about  $500^{\circ}\text{C}$ , and a Vickers hardness of no greater than 300 HV<sub>5</sub>.

In regards to the feature of claim 6, Prasad et al. teaches (col. 2, lines 19-34) that the alloy may be used in making dental restorations and has properties particularly suited for such an application.

In regards to the features of claim 7, Prasad et al. teaches (col. 2, lines 62-66) that the alloy can be veneered with a porcelain.

In regards to the features of claim 8, Prasad et al. teaches (see abstract) that the alloy can be used to fabricate dental restorations such as bridgework and crowns.

7. Claims 9-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al. in view of Chiamonte (U.S. Patent No. 4,108,642).

The teachings of Prasad et al. are discussed in above paragraph 3. Prasad also teaches (col. 4, lines 53-55) that iron can be present in the alloy in amounts of up to 6 wt%.

Prasad et al. does not teach the addition of 1-5 wt% gold to the cobalt-chromium alloy.

Chiamonte teaches (col. 2, line 57-col. 3, line 9) that 1-40 wt% gold may be added to a cobalt-chromium containing dental alloy to give the alloy a gold color, lower the melting point, and improve the mechanical properties of the alloy.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add gold to the dental alloy of Prasad et al. in order to get the enhanced color, melting point, and mechanical properties as taught by Chiaramonte (col. 2, line 57- col. 3, line 9).

In regards to the features of claims 10-15, these features have been addressed in above paragraph 3.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew E Wessman whose telephone number is (703)305-3163. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703)308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

AEW  
April 15, 2002

  
**ROY KING**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**

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Art Unit: 1742

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